

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1. (Original) In a scanning system including an illumination source having a time varying output controlled by a drive circuit and an image sensor driven by a pixel clock for scanning successive scan lines of an image, a method of eliminating strobing in the successive scan lines of the image comprising:

determining a nominal scan line time and an associated scan line integration time for the image sensor;

determining a nominal illumination source light output period;

adjusting at least one of (i) the nominal scan line integration time and (ii) the nominal illumination source light output period such that the scan line integration time is equivalent to an integer number of illumination source light output periods.

2. (Original) The method as set forth in claim 1, further comprising:

feeding one of (i) a pixel clock signal, and (ii) a signal derived from a pixel clock into the drive circuit to drive the illumination source at a frequency corresponding to the adjusted light output period.

3. (Original) The method as set forth in claim 2, further comprising:

using the pixel clock signal, synchronizing (i) a relative phase of the illumination source light output and (ii) a start time of the image sensor integration for each scan line.

4. (Original) The method as set forth in claim 2, wherein if a given scan line integration time is required, the adjusting step includes:

calculating a ratio of the required scan line integration time and the nominal illumination source light output period;

if the calculated ratio is a non-integer, rounding the ratio to a nearest integer value; and

dividing the required scan line integration time by the integer value to yield an adjusted illumination source light output period.

5. (Original) The method as set forth in claim 2, wherein if a given illumination source light output period is required, the adjusting step includes:
calculating a ratio of the nominal scan line integration time and the required illumination light output period;
if the calculated ratio is a non-integer, rounding the ratio to a nearest integer value; and
multiplying the required illumination source light output period by the integer value to yield an adjusted scan line integration time.

6. (Original) The method as set forth in claim 1, further comprising:
using a drive signal from the pixel clock, driving (i) the illumination source at a frequency corresponding to the adjusted light output period and (ii) the image sensor at a scan line frequency corresponding to the adjusted scan line integration time.

7. (Original) A method of scanning a document, said method comprising:
illuminating the document with a lamp having a time varying light output;
scanning successive scan lines of the illuminated document with a line scanner;
adjusting at least one of (i) a nominal light output period of the lamp and (ii) a nominal scan line integration time of the scanner such that the scan line integration time of the scanner is equivalent to an integer number of lamp light output periods; and
driving the lamp and the scanner in accordance with the adjusted light output period and scan line integration time using a common pixel clock signal.

8. (Original) The method as set forth in claim 7, further comprising:
using the pixel clock signal, synchronizing (i) a relative phase of the lamp light output and (ii) a start time of the scanner integration time for each scan line.

9. (Original) The method as set forth in claim 7, wherein if a given scan line integration time is required, the adjusting step includes:

calculating a number of nominal lamp light output periods within the required scan line integration time;

if the calculated number is a non-integer, rounding the number down to a nearest integer value; and

dividing the required scan line integration time by the integer value to yield an adjusted lamp light output period.

10. (Original) The method as set forth in claim 7, wherein if a given lamp light output period is required, the adjusting step includes:

calculating a number of required lamp light output periods with the nominal scan line integration time;

if the calculated number is a non-integer, rounding the number down to a nearest integer value; and

multiplying the required lamp light output period by the integer value to yield an adjusted scan line integration time.

11. (Canceled)

12. (Canceled)

13. (New) A document scanner system for scanning a document comprising:
a lamp having a time varying light output positioned to illuminate the document;

a scanner configured to scan successive scan lines of the illuminated document;

an adjustment system designed to adjust at least one of (i) a nominal light output period of the lamp or (ii) a nominal scan line integration time of the scanner, wherein the scan line integration time of the scanner is made equivalent to an integer number of lamp light output periods of the lamp; and

a pixel clock configured to generate a pixel clock signal implemented to

drive the lamp and the scanner in accordance with the adjusted light output period and scan line integration time using the pixel clock signal.

14. (New) The document scanner system according to claim 13, wherein the adjustment system includes:

a frequency control processor which adjusts the at least one of (i) the nominal light output period of the lamp and (ii) the nominal scan line integration time of the scanner.

15. (New) The document scanner system according to claim 14, further comprising:

a planar imaging platen on which the document is positioned and the planar imaging platen is located to receive the time varying light output of the lamp for illuminating the document on the platen.

16. (New) The document scanner system of claim 15, including:

a transfer station configured and positioned for transfer of an image charge pattern onto a photoreceptor;

a developing station configured and positioned to develop the charge pattern; and

a fuser station configured and positioned to fix a developed image of the charge pattern onto a physical media.